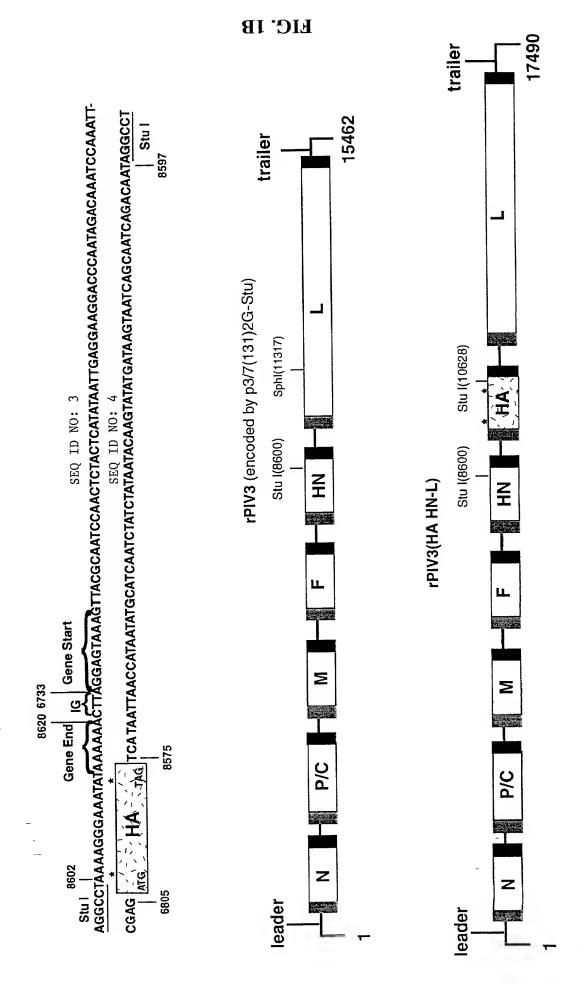
Measles HA insert for N-P and P-M junctions

17388 17388 trailer NgoMI trailer trailer GATCCAACAAAGAAACGACACCGAACAAACCTTAAG 15462 15462 trailer SEQ ID NO: 2 3594 Z N-P Junction Y ¥ Measles-HA ORE rPIV3 rPIV3(HA P-M) rPIV3(HA N-P) Xhol(7437) P-M Junction rPIV3 Σ ⋝ AfIII(5619) CTTAAGAATATACAAATAAGAAAAACTTAGGATTAAAGAGCG 3731 ≥ BamHI(3903) ≥ gene end Gene Start P/C AfIII(3693) Afill(3693) Afil1(3603) P/C <u>ত</u> P/C SEQ ID NO: 1 Gene End P/C AfIII(1677) gene start AfIII(1677) PmII(1215) Z Z leader Z Z 4250 leader leader leader S

FIG. 1A

Measles HA Insert for the HN-L junction



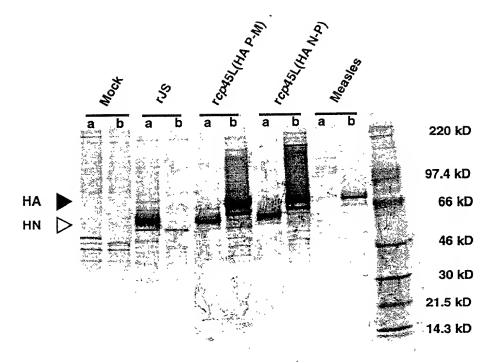


FIG. 2

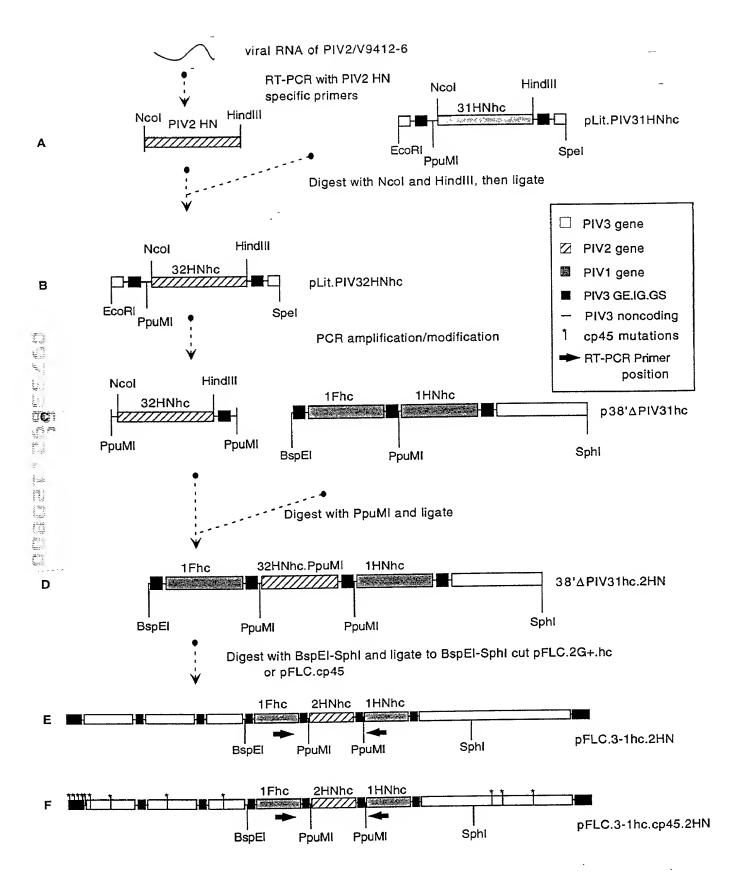


FIG. 3

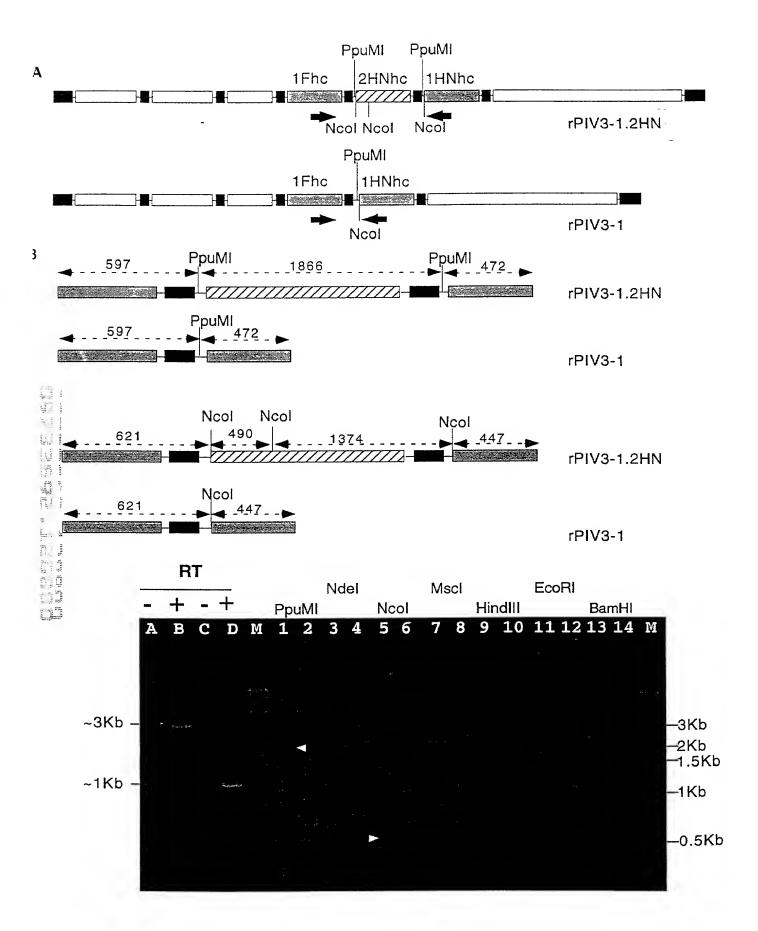


FIG. 4

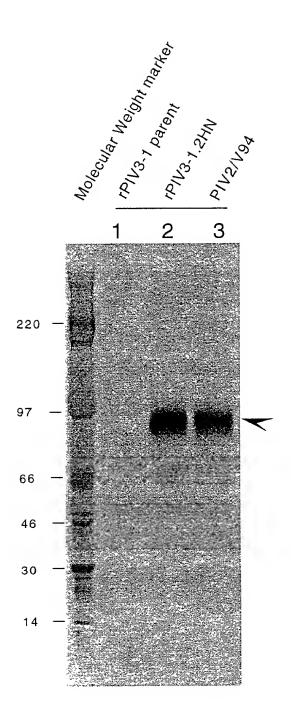


FIG. 5

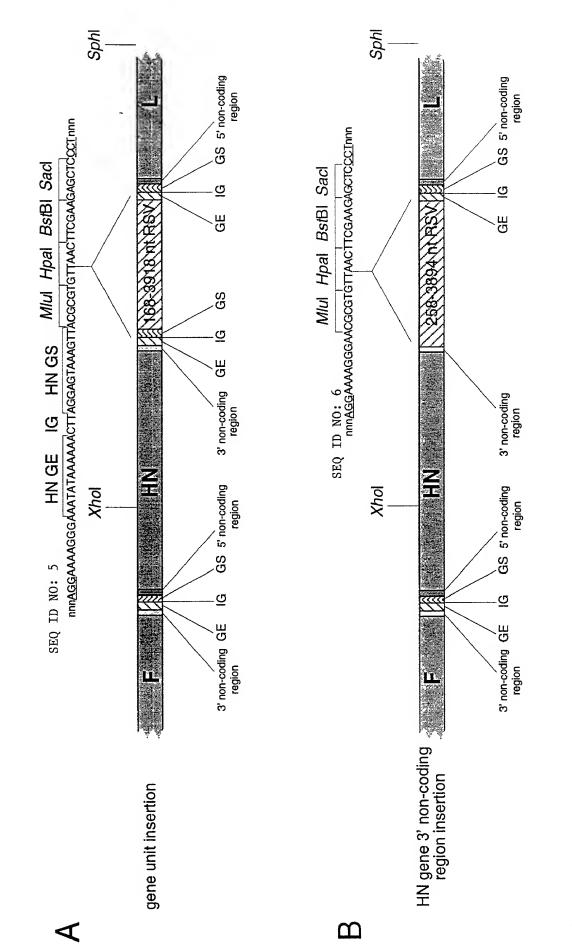
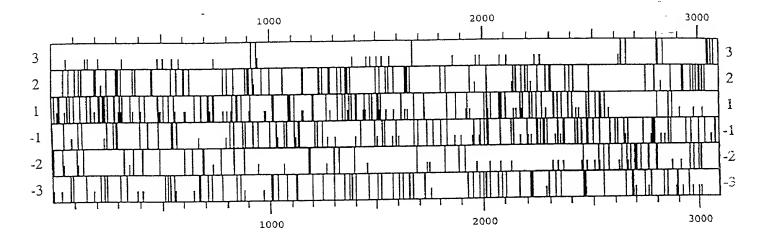
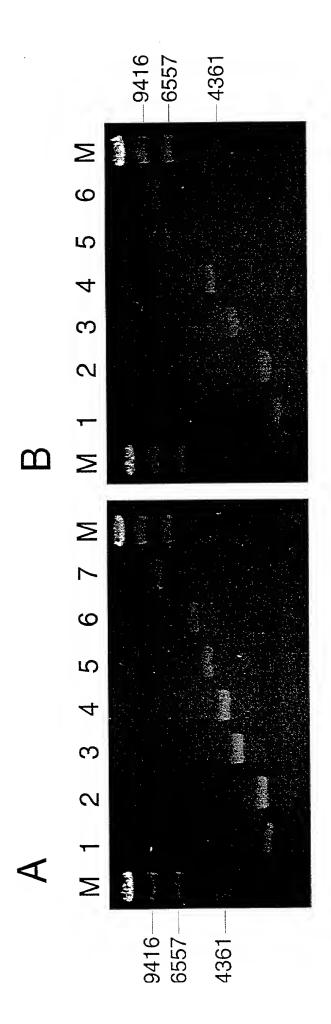
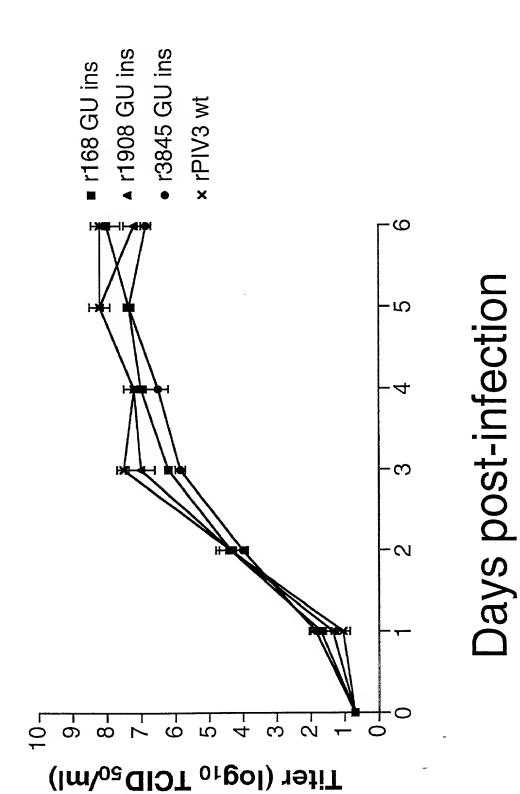


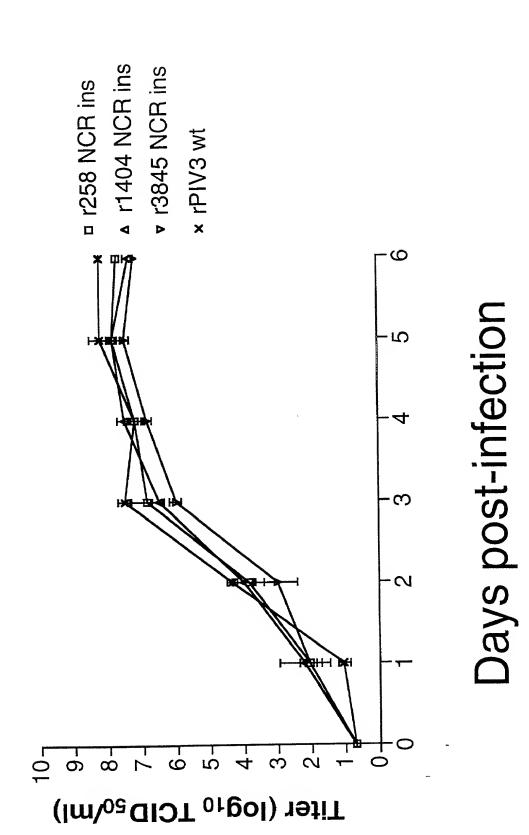
FIG. 6

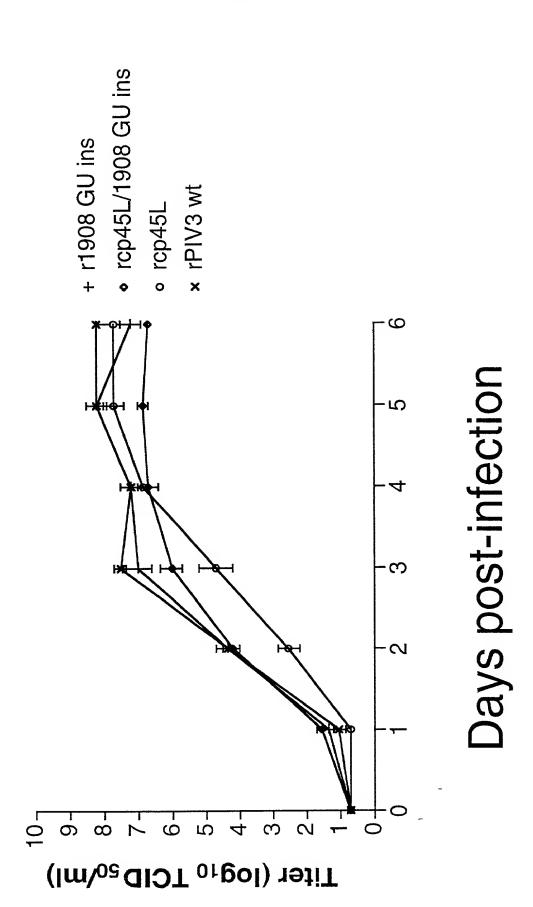




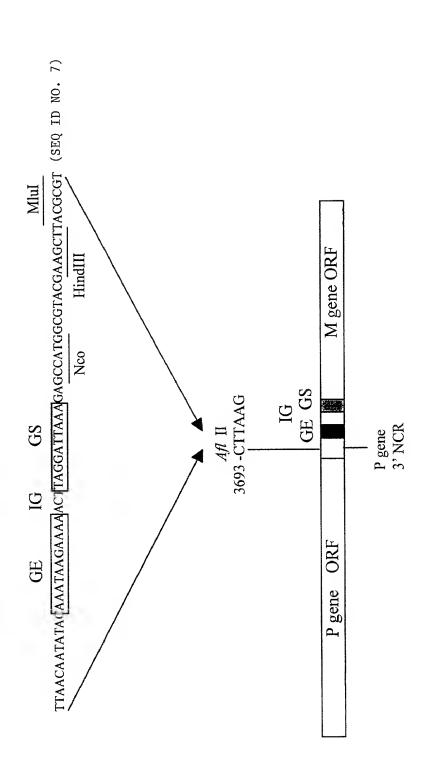


EIC. 9A





EIC' 6C

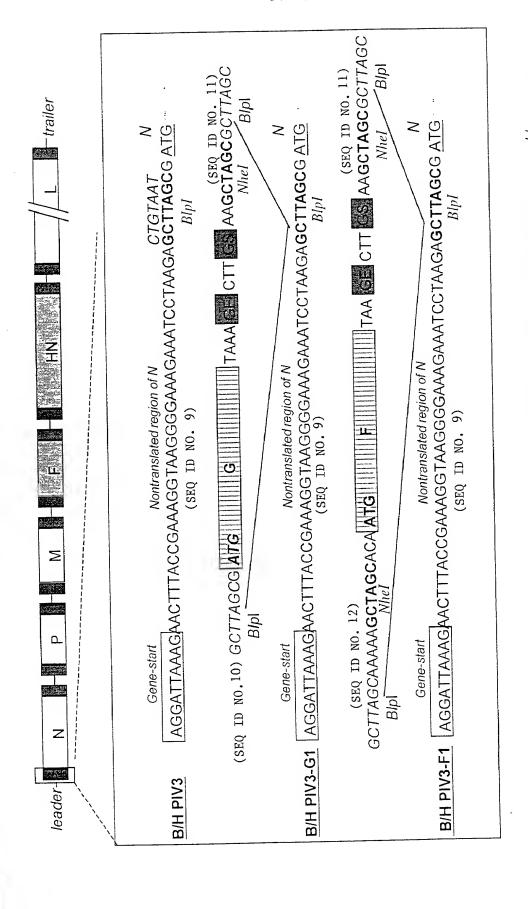


EIC' 10

rr at 39°C 0/ml) <sup>b</sup>		FIG. 11
Reduction in titer at 39°C (log10 TCID50/ml) <sup>b</sup> 0.3	0.7 2.3 0.3 0.5	0.8
Mean peak titer (log10 TCID50/ml) <sup>a</sup> 9.4	7.4 7.9 7.9 9.2	8.5
N P/ciow M F HN L	IN PICCONTENT M F HN L  IN PICCONTENT M F HN L  IN PICCONTENT M F HN L	IN SOME PICON WAS MIFIHM SOME L
HPIV3 wt	rHPIV3 1HN»₽ rHPIV3 1HN»₽ rHPIV3 2HN№₽	THPIV3 1HNwP2HNPw  THPIV3 1HNwP2HNPwHAPP  THPIV3 1HNwP2HNPw391BGUPPP

**BPIV3 Kansas** 

Insertion of RSV G or F as an additional gene unit in a promoter-proximal position 



**1** ≥ Z Z B/H PIV3-G1 leader

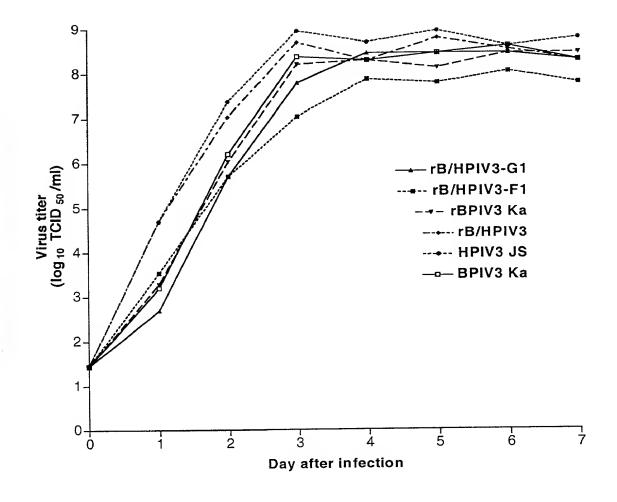
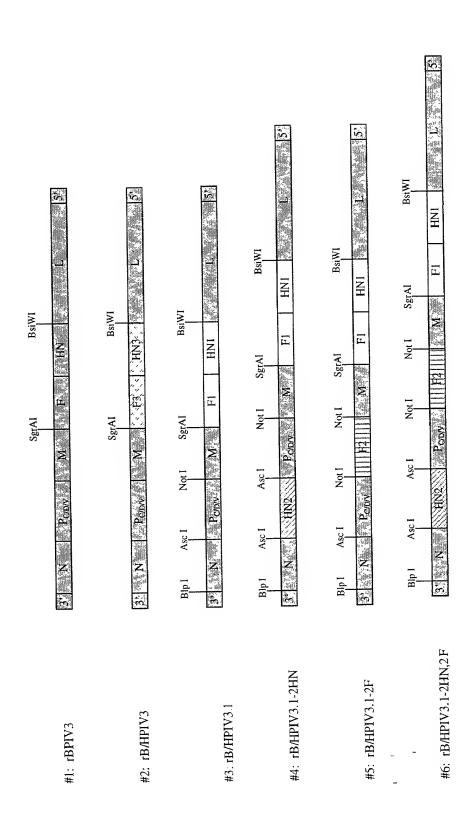
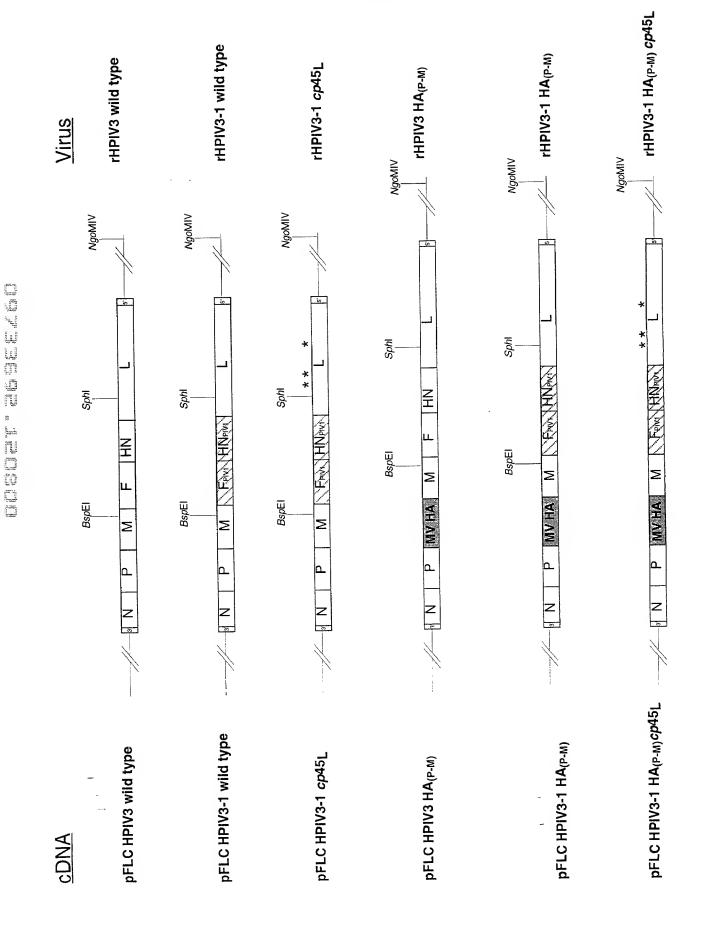


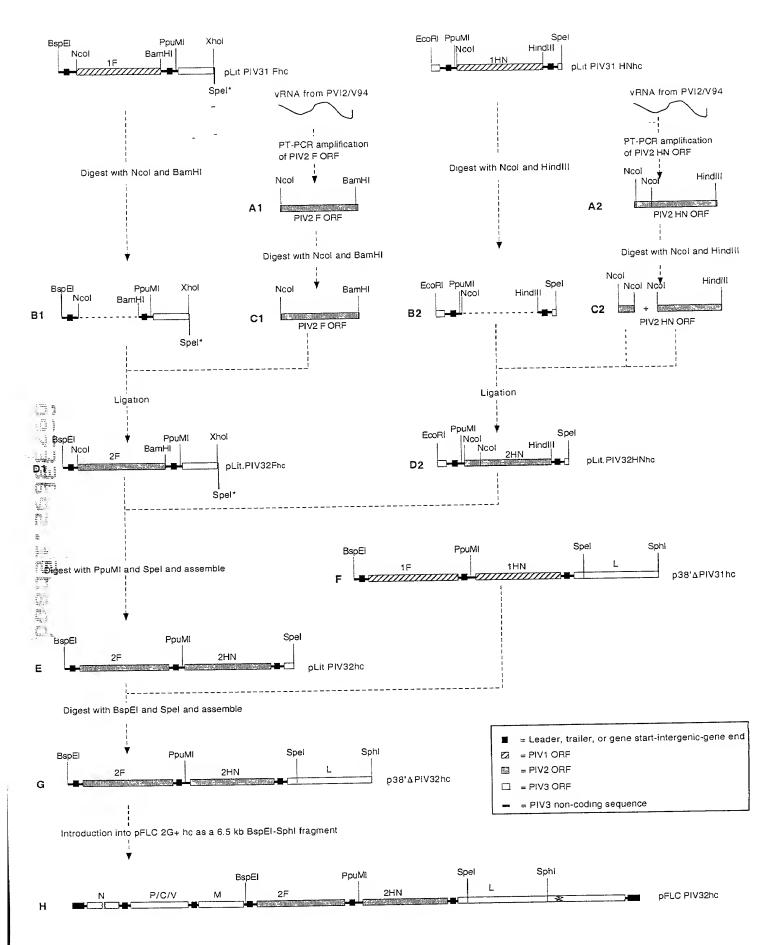
FIG. 14

Recombinant Bovine/Human PIV3.1 expressing HPIV2 F and HN from supernumerary genes

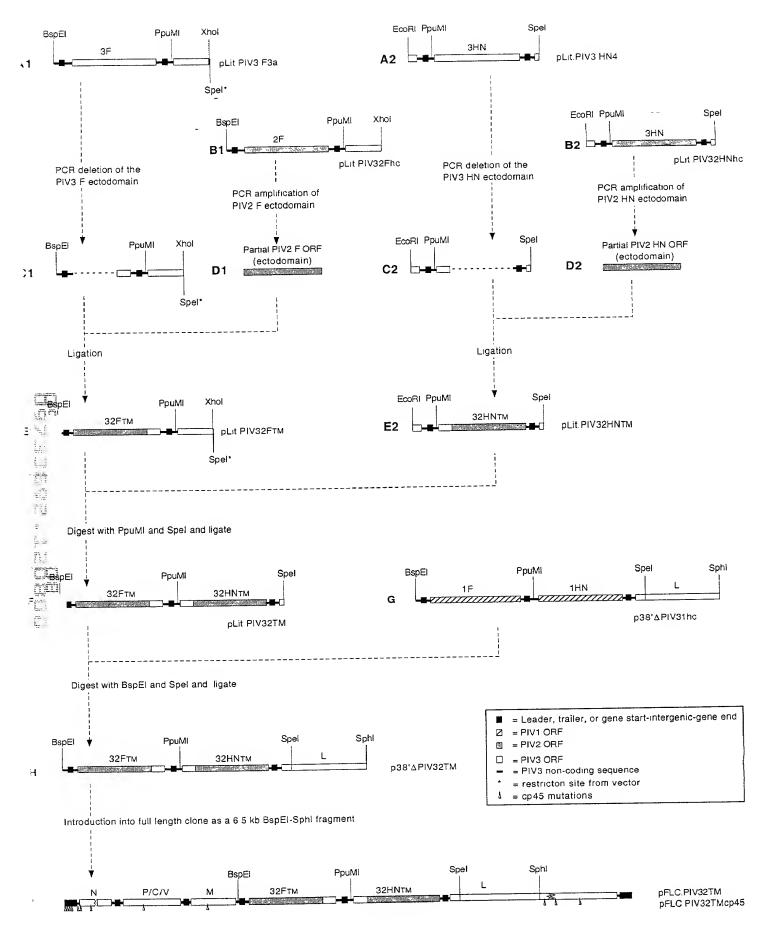


EIC' 12

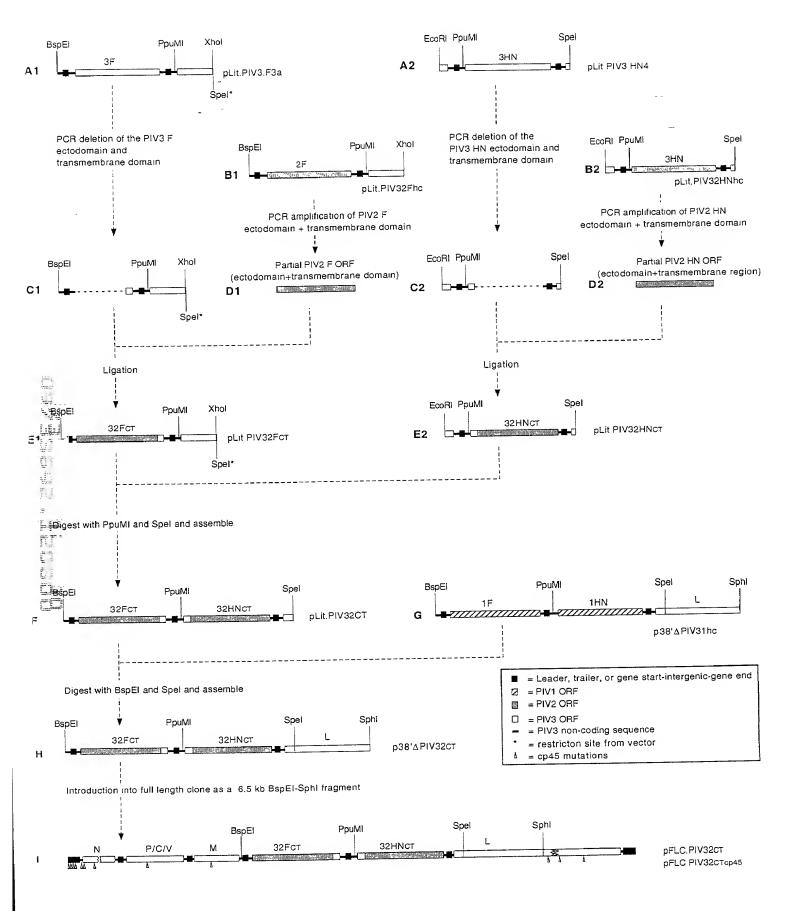




**FIG. 17** 

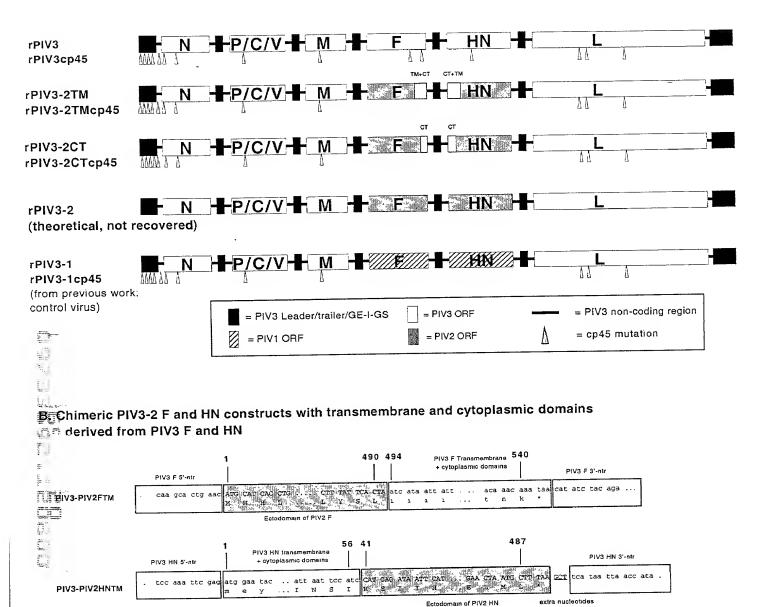


**FIG. 18** 

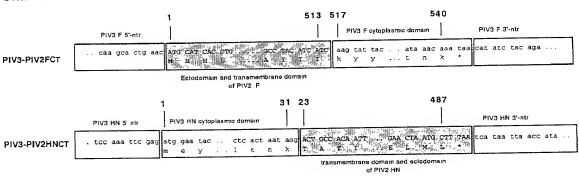


**FIG. 19** 

## A. Genetic structures of PIV3-2 chimeric viruses compared with rPIV3 parent and rPIV3-1



## C. Chimeric PIV3-2 F and HN constructs with cytoplasmic domain derived from PIV3 F and HN



**FIG. 20** 



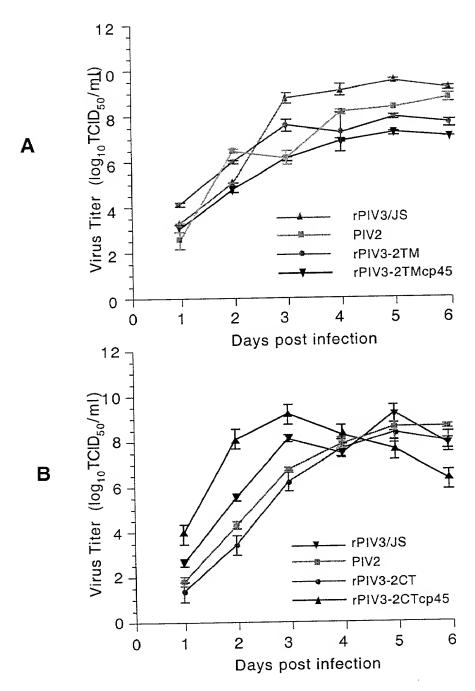


FIG. 21